REMARKS

Applicants submit this paper in response to the Office Action dated December 6, 2002 that was issued in the above-identified application. Applicants respectfully request reconsideration of the instant application in view of the amendments and remarks presented herein.

Claims 1 and 27-51 are pending. Claims 1, 42, 50 and 51 have been amended. Rewritten claims appear in the preceding "IN THE CLAIMS" section. Attached hereto is a marked-up version of the changes made by the instant amendment captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE" and is included pursuant to 37 C.F.R. §1.121(c)(ii). Should any discrepancies be discovered, the version presented in the preceding "IN THE CLAIMS" section shall take precedence.

Amended claims 1, 42, 50 and 51 are fully supported by the application as filed and, therefore, do not constitute new matter.

Claims are Novel Over the Cited Document

Claims 1, 27, 32, 42, and 50 are rejected under 35 U.S.C. §102(b) as allegedly anticipated by French application FR 2743421 by Ronfard et al. (hereinafter "Ronfard"). The Examiner has alleged that Ronfard discloses a device with a substrate for adhesion of cell traces consisting of material residues separated from the cells.

Applicants traverse this rejection and assert that the instant claimed invention is not anticipated by Ronfard. Ronfard discloses a process for measuring the migration of keratinocytes on a substrate with a fibrin basis. In contrast to the present invention, the process

of Ronfard does not relate to a process for assaying for the biological properties of a cell based on the analysis of cell traces consisting of material derived from said cells. Applicants invite the Examiner's attention to the definition of "cell traces" provided in the instant application, *inter alia*, at page 7, lines 1-27. This description clearly indicates that "cell traces" according to th instant invention consist of **cellular material**. In contrast, Ronfard discloses a process for analyzing **exogenous material**, *i.e.*, fibrin, coated onto the surface to detect keratinocyte migration. *See e.g.* Ronfard, English Translation, page 3, lines 8-10 and claim 1. Ronfard does not teach or suggest that these "impressions" consist of cellular materials. Since Ronfard fails to teach each and every element of the claimed invention, Applicants respectfully request withdrawal of this rejection.

Claims are Nonobvious Over the Cited Documents

Claims 1 and 27, 29, and 30 have been rejected under 35 U.S.C. §103(a) as allegedly obvious over U.S. Patent No. 4,359,527 to Zetter (hereinafter "Zetter") in view of EP 0 347 210 by Loken et al. (hereinafter "Loken"). The Examiner has alleged that Zetter discloses a diagnostic assay wherein the area of a phagokinetic track left by at least one capillary endothelial cell is measured. The Examiner has acknowledged that Zetter does not disclose multiparameter analysis of cells in a body fluid. The Examiner has alleged that Loken discloses multiparameter analysis of cells in a body fluid.

Applicants traverse this rejection and assert that the instant claimed invention is not obvious over Zetter in view of Loken. Applicants respectfully point out that Zetter, like, Ronfard, does not teach or suggest analysis of cell traces that consist of cellular material. Zetter

discloses an assay wherein the area of phagokinetic tracts are measured. *See e.g.* Col. 2, lines 2-4, and claim 1. Zetter describes phagokinetic tracts as follows: "The cells ingest the gold and, as they move, leave **bare areas** or phagokinetic tracts as records of their movement." Col. 1, lines 38-40, emphasis added. Thus, Zetter fails to teach or suggest cell traces that consist of cellular material.

Although Loken discloses multiparameter analysis of cells in a body fluid, Loken fails to disclose an assay based on analysis of any kind of cell trace. Since Zetter and Loken, whether considered separately or in combination, fail to teach or suggest each element of the claimed invention, Applicants respectfully request withdrawal of this rejection.

Claims 1 and 38 have been rejected under 35 U.S.C. §103(a) as allegedly obvious over Zetter alone. The Examiner has alleged that Zetter discloses a diagnostic assay wherein the area of a phagokinetic track left by at least on capillary endothelial cell is measured. The Examiner has acknowledged that Zetter does not disclose predetermined surface tracts, but alleges that such would have been obvious to one of ordinary skill in the art.

Applicants traverse this rejection and assert that the instant claimed invention is not obvious over Zetter. Applicants respectfully point out that Zetter fails to teach or suggest each and element of independent claim 1, *i.e.* analysis of cell traces consisting of cellular residues, as discussed in the preceding paragraphs. Applicants, therefore, respectfully request withdrawal of this rejection.

Claims 1 and 27, 32, 42-47, and 50 have been rejected under 35 U.S.C. §103(a) as allegedly obvious over Ronfard in view of the instant application. The Examiner has alleged that

Ronfard discloses a diagnostic assay wherein cells adhere more po rly to the surface that on surface tract regions. The Examiner has acknowledged that Ronfard does not disclose the cell treatment and testing techniques of claims 43-47. The Examiner has alleged that Applicant's application indicates that such cell treatment and testing techniques are known in the relevant field of art.

Applicants traverse this rejection and assert that the instant claimed invention is not obvious over Ronfard. Applicants respectfully point out that the question of cell treatment and testing techniques recited in dependent claims 43-47 is moot in view of the failure of Zetter to teach or suggest each and every element of independent claims 1, 42, and 50, *i.e.* cell traces consisting of cellular residue, as discussed in the preceding paragraphs. Applicants, therefore, respectfully request withdrawal of this rejection.

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PATENT

The Commissioner is hereby authorized to charge any fees due with this submission not otherwise enclosed herewith to Deposit Account No. 02-4377. Please credit any overpayment of fees associated with this filing to the above-identified deposit account. A duplicate of this page is enclosed.

Respectfully submitted,

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Enclosures

VERSION WITH MARKINGS TO SHOW CHANGES MADE

This marked-up version was prepared with DeltaView software (v2.5.163). In this section, added text is marked with double underlining. *e.g.* added text, and deleted text is marked by a single strikethrough, *e.g.* ~~deleted text~~.

IN THE CLAIMS

Please **amend** claim 1 with the following rewritten claim:

1. (THRICE AMENDED) A process for [the manipulation] cell traced based testing of biological cells, in which the cells are applied to a substrate, which is at least partially structured and/or surface modified, and wherein said cells move adhesively over surface track regions of the substrate while producing cell traces derived from cell residues and cell tests are performed on the cell traces.

Please **amend** claim 42 with the following rewritten claim:

42. (TWICE AMENDED) A device for cell trace based testing of biological cells [with] comprising a substrate having surface regions and surface track regions, [on which the] wherein cells adhere more poorly on the surface regions than on surface track regions and wherein the surface track regions are arranged for the adhesion of cell traces derived from cell residues.

Please **amend** claim 48 with the following rewritten claim:

48. (TWICE AMENDED) A process for cell trace based cultivation of biological cells, in which the cells are applied to an at least partially structured and/or surface modified substrate and move adhesively over the surface of the substrate while producing cell traces derived from cell residues and a cultivation of the same or a different type of cells is performed on the cell traces.

Please **amend** claim 50 with the following rewritten claim:

50. (TWICE AMENDED) [The] A process [of] for testing the properties of biological cells for medical, biochemical, and/or pharmacological purposes, or for biocompatible modification of the surfaces of implant materials, [by using] wherein said process utilizes cell traces derived from cell residues on substrates.

Please **amend** claim 51 with the following rewritten claim:

51. (TWICE AMENDED) [The] A process for the manipulation of biological cells, in which the cells are applied to a substrate, which is at least partially structured and/or surface modified, and move adhesively over surface track regions of the substrate while producing cell traces, wherein the cell traces contain genetic materials of the cells, and the genetic materials are subjected to amplification and the amplified genetic material is subjected to a genetic analysis.